

**Naval Air Station Brunswick
Cumberland County
Brunswick, Maine
A-268-71-X-M**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #3**

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. Naval Air Station Brunswick (NASB) of Brunswick, Maine was issued Air Emission License A-268-71-T-A/R on April 21, 2000 permitting the operation of emission sources associated with their military flight operations facility. The license was subsequently amended on November 6, 2000 (A-268-71-V-A) and September 25, 2001 (A-268-71-W-M).
2. NASB has requested a minor revision to their license in order to make the following changes:
 - a. Add a new 400 kW generator to Building 209. The existing 200 kW generator in Building 209 will be used as a spare and remain on the air emission license.
 - b. Add a new 320 kW generator and a new 228 kW generator as spares.
 - c. Remove Engine #38 from the license
 - d. Clarify that Engine #47 is to fire only diesel fuel and not #2 fuel oil.
 - e. Re-establish naming for all generators on site.
 - f. Remove the paint booth previously licensed in Building 51.
 - g. Establish an emission limit for Hazardous Air Pollutants (HAPs).

B. Generators

NASB is licensed to operate the following emergency generators:

<u>Equipment</u>	<u>Location</u>	<u>Power Output (kW)</u>	<u>Firing Rate* (gal/hr)</u>	<u>Fuel Type, % sulfur</u>
Engine #3	Hanger 5	155	11.0	diesel, 0.05%
Engine #4	Bldg 200	230	16.4	diesel, 0.05%
Engine #9	Bldg 211	65	4.6	diesel, 0.05%
Engine #18-1	Bldg 295 Fire Pump	287	20.4	diesel, 0.05%
Engine #18-2	Bldg 295 Fire Pump	287	20.4	diesel, 0.05%
Engine #18-3	Bldg 295 Fire Pump	287	20.4	diesel, 0.05%
Engine #18-4	Bldg 295 Fire Pump	287	20.4	diesel, 0.05%
Engine #26	Bldg 594	300	21.4	diesel, 0.05%
Engine #27	Bldg 594	230	16.4	diesel, 0.05%
Engine #29	Bldg 645	275	19.6	diesel, 0.05%
Engine #30	Bldg 646	100	7.2	diesel, 0.05%
Engine #31	Bldg 86	80	5.7	diesel, 0.05%
Engine #32	Bldg 654	125	8.9	diesel, 0.05%
Engine #42	Bldg 292	125	8.9	diesel, 0.05%
Engine #44	Spare	60	4.3	diesel, 0.05%
Engine #46	Bldg 537	80	5.7	diesel, 0.05%
Engine #47	Bldg 250	900	64.1	diesel, 0.05%
Engine #48	Bldg 554	125	8.9	diesel, 0.05%
Engine #49**	Bldg 209	400	28.5	diesel, 0.05%
Engine #50**	Spare	320	22.8	diesel, 0.05%
Engine #51**	Spare	228	16.2	diesel, 0.05%
Engine #52	Spare	200	14.2	diesel, 0.05%

*All firing rates have been updated based on assuming 35% efficiency.

**Denotes equipment not previously licensed.

C. Application Classification

This amendment will not increase emissions of any pollutants. Therefore, this modification is determined to be a minor revision and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Engines #49, #50 and #51

A summary of the BACT analysis for Engines #48, #49, and #50 is the following:

1. The total fuel use for the generators shall not exceed 30,000 gal/year of diesel fuel, based on a 12 month rolling total, with a maximum sulfur content not to exceed 0.05% by weight.
2. Chapter 106 regulates fuel sulfur content, however in this case a BACT analysis for SO₂ determined a more stringent limit of 0.05% was appropriate and shall be used.
3. The PM and PM₁₀ limits are derived from Chapter 103.
4. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
5. Visible emissions from the engines shall each not exceed 30% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period.

C. Painting Operations

NASB operates a multitude of painting operations including several paint booths. NASB wishes to note at this time that the paint booth in Building 51 was removed when the building was demolished.

D. HAP Limit

NASB is currently licensed to perform process operations that emit Hazardous Air Pollutants (HAPs) in addition to Volatile Organic Compounds (VOCs). As such, NASB proposes to add to their license a HAP emission limit of 9.9 tons per year for all combined HAPs.

E. Annual Emission Restrictions

NASB shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/Year</u>
PM	20.0
PM ₁₀	20.0
SO ₂	94.0
NO _x	73.0
CO	15.0
VOC	48.0
Total HAP	9.9

III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor source shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

The Department hereby grants Air Emission License Minor Revision A-268-71-X-M, subject to the conditions found in Air Emission License A-268-71-T-A/R, in the following amendments: A-268-71-V-A, A-268-71-W-M, and in addition to the following conditions:

The following shall replace Conditions (17) and (21)(B) of Air Emission License A-268-71-T-A/R, Conditions (16) and (17) of Air Emission License A-268-71-V-A, and Conditions (23) and (24) of Air Emission License A-268-71-W-M:

(28) **Generators**

- A. Total fuel use for the Generators shall not exceed 30,000 gal/yr of diesel fuel with a maximum sulfur content not to exceed 0.05% by weight. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel

delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a 12-month rolling total basis.

B. Emissions shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Engine #3	lb/hr	0.18	0.18	0.08	6.66	1.43	0.53
Engine #4	lb/MMBtu	0.27	0.27	0.11	9.88	2.13	0.78
Engine #9	lb/hr	0.08	0.08	0.03	2.78	0.60	0.22
Engine #18-1	lb/hr	0.34	0.34	0.14	12.35	2.66	0.98
Engine #18-2	lb/hr	0.34	0.34	0.14	12.35	2.66	0.98
Engine #18-3	lb/hr	0.34	0.34	0.14	12.35	2.66	0.98
Engine #18-4	lb/hr	0.34	0.34	0.14	12.35	2.66	0.98
Engine #26	lb/hr	0.35	0.35	0.15	12.92	2.78	1.03
Engine #27	lb/hr	0.27	0.27	0.11	9.88	2.13	0.78
Engine #29	lb/hr	0.32	0.32	0.13	11.82	2.55	0.94
Engine #30	lb/hr	0.12	0.12	0.05	4.32	0.93	0.34
Engine #31	lb/hr	0.09	0.09	0.04	3.44	0.74	0.27
Engine #32	lb/hr	0.15	0.15	0.06	5.38	1.16	0.43
Engine #42	lb/hr	0.15	0.15	0.06	5.38	1.16	0.43
Engine #44	lb/hr	0.07	0.07	0.03	2.60	0.56	0.21
Engine #46	lb/hr	0.09	0.09	0.04	3.44	0.74	0.27
Engine #47	lb/MMBtu	0.20	-	-	-	-	-
	lb/hr	1.76	1.76	0.44	28.10	7.46	0.79
Engine #48	lb/hr	0.15	0.15	0.06	5.38	1.16	0.43
Engine #49	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.47	0.47	0.20	17.20	3.71	1.37
Engine #50	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.37	0.37	0.16	13.76	2.96	1.09
Engine #51	lb/hr	0.27	0.27	0.11	9.79	2.11	0.78
Engine #52	lb/hr	0.23	0.23	0.10	8.60	1.85	0.68

C. Visible emissions from the generators shall each not exceed 30% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period.

The following shall replace Condition (20) of Air Emission License A-268-71-T-A/R:

(29) VOC and HAP Emissions

- A. Total VOC emissions from the facility shall not exceed 48.0 tons per year (based on a 12 month rolling total).
- B. Total HAP emissions from the facility shall not exceed 9.9 tons per year (based on a 12 month rolling total).
- C. NASB shall maintain records of all VOC and HAP emissions from the facility to demonstrate compliance with these limits.

The following are new Conditions:

(30) Toxic Air Pollutants Emission Statement

In accordance with MEDEP Chapter 137, the licensee shall report, no later than September 1, every two years (1996,1998,etc.) or in a timeframe designated by the Department, the information necessary to accurately update the State's toxic air pollutants emission inventory by means of a written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions on the Air Toxics emissions inventory portion should be directed to:

Attn: Toxics Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

- (31)** NASB shall pay the annual air emission license fee within 30 days of January 31st of each year. Pursuant to 38 M.R.S.A. Section 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 M.R.S.A. Section 341-D, Subsection 3.

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(32) This amendment shall expire concurrently with Air Emission License A-268-71-T-A/R.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/30/02

Date of application acceptance: 11/13/02

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.